liberties. "It would be better to realize that most of these liberties—the liberty to abuse land, to exploit our fellow men, to gamble in supplies essential to life—are, in plain fact, socially pernicious: we have long been actually in danger of elevating the crimes against humanity by industrial capitalism into the elements of a social system." He dislikes "the men on top, the aristocrats and the merchants and their parasites the lawyers." Massingham, on the other hand, dislikes the Industrial Revolution and the growth of large cities; he dislikes the Government's housing programmes, its policy of planting forests of conifers instead of broadleaved trees, its neglect of marginal lands; he dislikes its transport system and arterial roads which form a vast network of communication between the big towns, harbours, factories and the metropolis and which isolate the farms; he dislikes the way that we waste water and the way we grub up hedges. Most of all, he dislikes big machines. He compares the "Great Machines of modern agriculture" to the "Great Reptiles of the Jurassic Age." Massingham's dislikes are more miscellaneous than Hyams's; they are not politically focused and are therefore less

The two authors' evangelistic fervour has another feature of such fervours, namely some blind spots. These will be especially perceptible to readers of this journal. The population question is almost completely ignored. We are told that we are going to starve soon; indeed the book's dust-cover depicts the harrowing face of a starving child framed in the coastal outline of Great Britain. We are told that we import about 7½ million of the 15½ million tons of staple foods which we consume; and that we must so develop our native agricultural resources that food imports can be dispensed with. The population question is here and there passingly mentioned, chiefly by Mr. Hyams: the latter tells us, for example, that "we shall not be able to supply ourselves with all the bread we need off our own soil until our population is much reduced "; in his last chapter he describes as "catastrophic" the pace with which our population has increased; and in his first he describes this country as being in much the same position as Germany and Japan, which "are both seriously overpopulated in relation to their food-growing capacity." Yet Mr. Hyams believes that "overseas expansion is no longer possible or desirable." Why, we wonder?

By what process, we feel like asking, is this country expected to reduce its population to the point at which, without lowering living standards, we can cease to import staple foods? Is it supposed that the change will take place of its own accord? And by how much should our population be reduced? Our two evangelists do not turn aside to examine these awkward but vital questions.

This book contains much that is admirable. An increasing number of people deplore the present unbalance between town and countryside; the danger of our dependence on food imports is plain; the slogan "export or starve" chills the heart in an age when the raw materials for our factories may become scarce, when other countries are busily industrializing themselves, and when markets for our exports are becoming increasingly competitive. Also admirable is the plea for a revival of agriculture and for the reanimation of the arts of husbandry with the religious spirit which treats the soil-mother earthas something to be tended and cherished rather than exploited for quick profits. Indeed, we take due note of the sub-title's warning, and we concur in its proposed remedy—as far as it goes. Our only criticism is that the authors do not seem to have properly appreciated that it does not go far enough.

C. P. BLACKER.

POPULATION

Banks, J. A. Prosperity and Parenthood: A Study of Family Planning among the Victorian Middle Classes. London, 1954. Routledge and Kegan Paul. Pp. vi + 240. Price 21s.

It is sometimes said that as nations undergo industrialization and modernization fertility tends to fall, and a variety of instances may be adduced in support of the thesis. Whether, and how quickly, a similar process will occur in other countries not at present fully developed is a cardinal point in discussions on future world population. The matter is one of vital importance, and yet if an intrinsic reason is sought why there should be a decline in fertility when the standard of living is rising it is difficult to give a precise answer or to have great confidence in any suggested system of cause and effect.

The author therefore undertook a valuable research project in examining the circumstances and opinions of the British middle classes during the second half of the nineteenth century, that is, before, during and after the start, in this social stratum, of a steady reduction in the size of the family. Although much was known of the state of the working classes in Victorian times, the financial condition of professional and business men and their families had not been generally surveyed. How did their incomes vary? How much did they find it necessary to spend on the "paraphernalia of gentility" —their array of servants, their horses and their carriages? How much did it cost to bring up their children and launch them into the world? Seeking the data for the answers to these questions involved, in the author's words "a great deal of tiring and unrewarding effort." The extent of the effort is well illustrated by the copious references in the footnotes, not only to books on economics and social life but also to magazines, newspapers, manuals of domestic economy, biographies and school prospectuses. Such diligence may have been tiring, but so far as the reader is concerned the product is never unrewarding; indeed the text always holds the interest and often entertains.

For the enjoyment provided one may thank not only the author's pleasant style but also his subject. The middle classes were not constrained to follow a certain mode of living by the limited means at their disposal. Many of them were quite well off. Their attitude towards life was often dictated by social customs rather than necessity, and it is to the opinions of the many that

attention had to be directed; hence the references to the periodicals of the times. By good fortune there were also available the writings of a popular and prolific author who portrayed the thoughts and feelings of the gentry and, like Defoe before him, enlarged upon the monetary aspects of life and their influence on the day-to-day behaviour of his characters. It was to Anthony Trollope's novels and autobiography that the author turned with satisfying effect. For contrasts with an earlier period he has been able to quote Jane Austen. The charm of these writers has helped to put some of the warmth of human feeling alongside the cooler science of sociology.

What panorama has been revealed by the exploration of these various sources of information? The period 1850-70 was, for the middle classes, a time of rising prosperity, increasing numbers, confidence in the future, ambition and emulation. They set themselves patterns of life, establishing models for the "prudent" age at marriage, the right number of domestic servants of each type, the standard of dress, the proper kind of carriage. After 1870, when something of an economic recession set in—although this was slight by modern standards—and when the cost of children became heavier, it became difficult to live up to the standards set during prosperity, and in these circumstances family limitation commenced. The author has been careful to point out that these were the happenings of the time, not necessarily causes and effects, but he leaves no doubt that in his view the desire to keep up or even improve the standard of living was an important influence on the current way of thought and action of the middle classes.

There remain, of course, many unanswered questions. First, do the "impressions which have arisen from contact with the most likely sources of representative fact" truthfully portray the age? Could a mild economic setback really have been strongly associated with so important a revolution in the ways of thinking that people should begin to regard contraception as desirable whereas formerly it had always been regarded with abhorrence? Why did family limitation

later spread to the working population, to which hardly any of the arguments apply? Are the middle-class circumstances of the Victorian era representative of the conditions in which similar declines in fertility occurred in other European countries—this seems improbable but certainly deserves investigation?

Although this book relates to a period before modern eugenics began, the investigations described in it are not without significance in relation to eugenic policy. Members will find the author's adventures, which, he emphasizes, are hopeful travels rather than triumphant arrivals, absorbing to follow because of his attractive description of an interesting landscape.

PETER R. Cox.

GENETICS

Kallmann, Franz J. Heredity in Health and Mental Disorder: Principles of Psychiatric Genetics in the light of Comparative Twin Studies. New York. 1953. Norton. Pp. 315. Price \$ 6.00.

For twenty-five years Dr. Kallmann has investigated the inheritance of schizophrenia. From small beginnings, he has built up the department of genetics of the New York State Psychiatric Institute, which is now a well-known research organization. We are told by Dr. Nolan Lewis, who contributes a foreword, that the research now in progress covers thousands of pairs of twins and their families.

This book is noteworthy for the excellence of its illustrations of twins at different stages of their lives. The twin studies are described in the second of the book's three parts which are expansions of three commemorative lectures.

Many readers of this book will stressfully regret that Dr. Kallmann's literary style falls seriously short of the requirements of his interesting and comprehensive material. Indeed, there are many passages which are not only unreadable but scarcely comprehensible. For example, Dr. Kallmann

apparently wishes to tell us that he was led to recognize that prejudices about heredity could impair people's judgments. He expresses this simple and widely shared experience by saying that he was led to "a vague precognition . . . of a peculiar susceptibility of genetic observations to interference by conceptualized sensitivities."

In the first lecture, entitled "Heredity in Relation to Mental Health," and in the third, "Contributions of Genetics to Mental Health Planning," I could find nothing that at the same time had a comprehensible meaning and seemed worth saying. But the photographs of twins which illustrate the second lecture (the book's middle part: it is entitled "Heredity in Relation to Mental Disorder "), and the simply written summaries of the differences between the twins. go far to make up for the literary deficiences. Of particular interest are the author's observations on suicide and homosexuality among twins. The findings are strikingly different. Of eighteen pairs of uniovular twins of which one twin in each pair had committed suicide, the other twin had done the same in but four of the eighteen pairs. And of these four examples of "concordance," three were regarded as "questionable " for reasons which are not in this book In, Dr. Kallmann's words: explained. "Suicide is one of the few phenomena unlikely to occur in both twins even under similar conditions of maladjustment and privation."

Very different are the findings in respect of homosexuality among forty-five male uniovular twins. In forty-four pairs, both the twins were homosexual. There was almost complete concordance. The exception (the discordant pair) is mentioned in a footnote. These thirty-year old twins differed from one another not only in respect of homosexuality but also in that one twin was schizophrenic and alcoholic when the other was normal. Dr. Kallmann adds: "Apart from being fully concordant, more of the one-egg pairs tend to be similar in the role [e.g. active or passive they take in their sexual activities, as well as in the extent of feminised appearance and behaviour by them."